

**REMARKS:****Regarding specification objections and claim objections:**

The specification objections and claim objections are overcome by the amendments for the specification and claims.

**Regarding the Claim rejections - 35 USC 112:**

The rejections are overcome by the amendments for the claims.

The claim 1 recites a heat-retaining feather wadding consisting of feathers having barbs, tiny barbs and hooks and adhesive. It means the feather wadding is formed by feathers and adhesive only, without any other material.

The barbs 2, tiny barbs 4 and hooks are defined clearly and definitely in the following paragraph together with Fig. 1:

"Referring Figure 1, feathers 1 make use of a kind of single feather come from washed-ducks, goose feathers and downs after getting rid of quills. Through process of non-weaving textiles technology to form the feathers as a web piece structure by intercrossing and interlinking the barbs 2, tiny barbs 4, hooks 3 of feathers together. The crossing and linking points are bonded together by adhesive 5." (Specification P.4, line 4-8 and Fig.1)

Regarding claim 6, the adhesive is low melting point fibers; please see the second paragraph of page 2 and the last paragraph of the page 4 of the specification.

**Regarding claim Rejections - 35USC 102/103**

## Regarding Rejection 7

Keller teaches a composite filament material, which is created by combining various lengths of feather material filaments with a thermoplastic material binder. The composite material is thermally or chemically processed to form a mat material for subsequent forming (Specification [0006]). "Ratios between the feather fiber and thermoplastic binder may range from 1:1 to 1:10 by weight." (Specification [0018]). It clearly tells that the mat material of Keller's invention is a mixture of feather fiber with thermoplastic material, then through hot mold to form a mat. **The mat is airproof.**

The present invention utilizes feathers with barbs, tiny barbs and hooks to form a kind of web piece structure by intercrossing and interlinking the feathers, the crossing and linking points of said barbs, tiny barbs, hooks, and then bond them together by adhesive to form a ventilating structure. In the wadding, the feathers may range more than 99% by weight. **The wadding is light, soft and ventilate.**

Obviously, the claim 1 is totally different from Keller. The differences are that the **product** of claim 1 is **ventilate feather wedding with a ventilating structure**, but Keller product is mat made by molding mixture of feathers and thermoplastic material, no ventilate structure and is airproof. Furthermore, Keller's composite filament includes little amount feather and large amount of thermoplastic binder. The ration between feather and thermoplastic binder is 1:1 to 1:10. For claim 1, it only includes feathers and little adhesive.

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or

motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir.1991). See MPEP 2143-2143.03 for decisions pertinent to each of these criteria."

Keller does not teach any suggestion or motivation for using feather only to make feather wedding, which is not a general knowledge, no references cited disclose this matter is verification. Keller does not give any reasonable expectation of success relating to wedding can be made by feather only. Keller also does not teach or suggest all the limitations of the claim 1, such as barbs, tiny barbs and hooks to form a kind of web piece structure by intercrossing and interlinking the feathers, the crossing and linking points of said barbs, tiny barbs, hooks, and then bond them together by adhesive to form a ventilating structure.

Therefore, the Examiner's rejection over Keller under 35 USC 103 is overcome, the amended claim 1 is patentable.

The claim 2 is a dependent claim of the claim 1, it holds all new features of the claim 1 and adds its new features. The adhesives described in the claim 2 are not taught by Keller. Keller taught thermoplastic binder only. Therefore, the claim 2 is patentable.

**Regarding Examiner's response to arguments 8:**

The applicant respectfully read the Examiner's response to arguments. The applicant requests Examiner take attention to the following differences between the claim 1 and Keller:

The binder used by Keller and the adhesive used by claim 1 are different. The binder selected from the group consisting of polypropylene and polyethylene (Keller claim 2) is **grain or powder**. The adhesive consisting of polyurethane or polypropylene acid ester or poly-acetate ethyl ester or poly-chlorine ethene or propylene acid emulsion is **liquid**.

Keller's composite feather filament material is a mixture of the feather fibers, along with a thermoplastic binder. The ration between feather and thermoplastic binder reaches **1:1 to 1:10**, the component of thermoplastic binder occupies a big part in Keller's mat. For the wedding of claim 1, the feather is the main component and only few adhesive exists in the wedding.

For Keller's mat the thermoplastic binder enwraps the feather than combines together by hot mold, it becomes airproof. The wedding of claim 1 has a web structure, and the barbs, tiny barbs hooks of feathers are bonded together by liquid adhesive, it is ventilate.

#### **Regarding Rejection 9:**

Kawada teaches a short fiber-containing down-feather wadding. a down-feather wadding in which short fibers are incorporated in down-feathers. The above-mentioned object is achieved by entangling short fibers into barbs of down-feathers. (Specification column 1, line 54-58). **Kawada teach nothing about adhesive in his invention.**

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir.1991). See MPEP 2143-2143.03 for decisions pertinent to each of these criteria."

The Kawada teaches nothing about the limitation of adhesive in claim 1, the suggestion or motivation for using feather and adhesive only to make wadding and the reasonable expectation of success. Therefore, the claim 1 is patentable.

The claim 6 is a dependent claim of the claim 1, it holds all new features of the claim 1 and adds its new features. The low melting point fibers described in the claim 6 are not taught by Kawada. Therefore, the claim 2 is patentable.

#### **Regarding Examiner's response to arguments 10:**

The Examiner writes "The adhesive of claim 1 may comprise the fibers set forth in claim 6." The applicant respectfully disagrees with it. It is clear that the claim 1 only has feather and adhesive. In the claim 6 the adhesive is further defined as low melting point fibers. Therefore, the Kawada's structure is different from the claim 1.

#### **Regarding Rejection 11:**

**Yoshioka teaches** natural feathered fiber insulator composed of natural feathered fiber by 1 to 99 weight % as composition material and formed by compounding synthetic fiber by 1 to 99 weight % as binder. Said synthetic fiber is characterized by being a core sheath composite fiber whose sheath portion is made of low melting point olefin and core portion is made of high melting point synthetic resin. (specification [0008])

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir.1991). See MPEP 2143-2143.03 for decisions pertinent to each of these criteria."

The Kawada teaches noting about the limitation of adhesive in claim 1, the suggestion or motivation for using feather only to make wadding and the reasonable expectation of success. Therefore, the claim 1 is patentable.

The claim 6 is a dependent claim of the claim 1, it holds all new features of the claim 1 and adds its new features. The synthetic fiber described by Yoshioka is a core sheath composite fiber whose sheath portion is made of low melting point olefin and core portion is made of high melting point synthetic resin. In the claim 6 the low melting point fibers **consists of** alkali polyester

fiber, polypropylene fiber and mixture of Polypropylene fiber with polyethylene fiber with melting point from 110°C to 140°C, which are not core sheath composite fiber and not taught by Yoshioka. Therefore, the claim 6 is patent able.

For all of the above reasons, applicant submits that the specification and claims are now in proper form, and that the claims all define patentably over the prior art. Therefore, applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tianhua Gu". The signature is stylized with a large, prominent "T" and "G".

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